

ABSTRACT

All aluminum alloy is disclosed that includes 6.5 to 8.5 percent silicon,  
0.6 to 1.0 percent iron, 0.0 to 0.5 percent manganese, 0.35 to 0.65 percent  
magnesium, 0.0 to 1.0 percent zinc, 0.0 to 0.2 percent titanium, 2.0 to 2.5  
5 percent copper, and aluminum as the remainder with further one or more other  
elements that are 0.0 to 0.15 percent of the weight of the aluminum alloy. An  
aluminum alloy of the above composition is high in strength and suitable for  
use with SSM methods of casting, such as Rheocasting and Thixocasting.